Entropy Analysis of Heart Rate and Arterial Blood Pressure Variability and Their Applications

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Message from the Guest Editors

The analysis of the cardiovascular oscillations by means of heart rate and arterial blood pressure variability has a longstanding history. The easy recording of the involved signals and performance of the analysis have contributed to maintain and grow the overall interest in this topic. Through the years, several analytical methods have been proposed and optimized for a more precise characterization of the cardiovascular and autonomic control. The availability of robust entropy methods for the study of heart rate and arterial blood pressure variability is undiscussed.

In the future, the real challenge will be to encourage and increase the translational approach in this field. The spread of wearable devices and the possibility to easily obtain cardiovascular data in both laboratory and free-living conditions, together with a broad technological advancement, should facilitate this process.

This Special Issue is focused on clinical and non-clinical applications of entropy analytical methods for the study of the heart rate and blood pressure variability, to deepen the pathophysiology of diseases and physiological variations.

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Special Issue

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Message from the Editor-in-Chief

The concept of entropy is traditionally a quantity in physics that has to do with temperature. However, it is now clear that entropy is deeply related to information theory and the process of inference. As such, entropic techniques have found broad application in the sciences.

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